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**Forming gallium nitride-based nitride layer**

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**Patent Family**

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**Patent Details**

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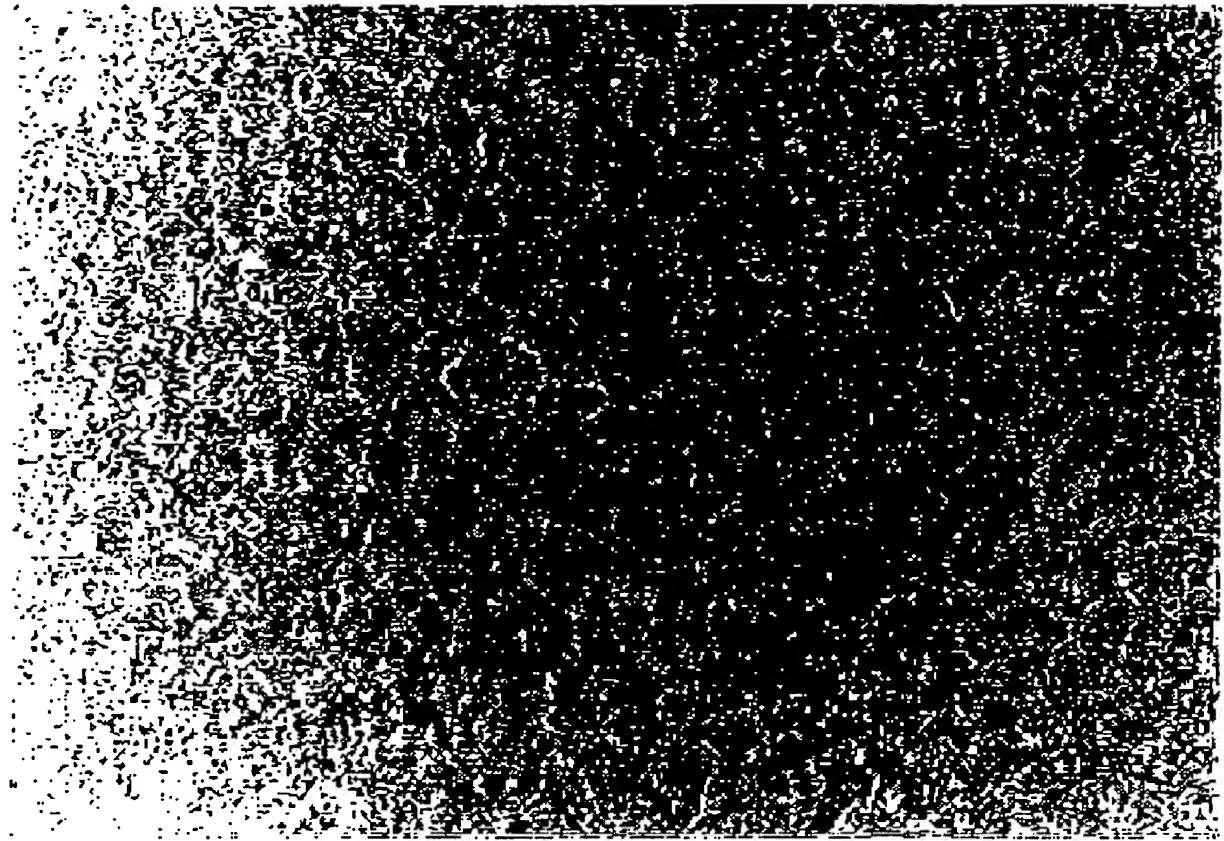
**Abstract:**

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**NOVELTY** A method for forming GaN-based nitride layer is provided to improve cohesion of a SiC buffer layer and a GaN-based nitride layer by forming a wetting layer on the SiC buffer layer, and to form a high-quality GaN layer by optimizing the formation of the SiC buffer layer and the wetting layer.

**DETAILED DESCRIPTION** A silicon carbide buffer layer is formed on a sapphire substrate. A wetting layer is formed on the silicon carbide buffer layer, having a composition of Al ( $x_1$ )Ga( $y_1$ )In( $z_1$ )N(0 at most  $x_1$  at most 1, 0 at most  $y_1$  less than 1, 0 at most  $z_1$  at most 1,  $x_1+y_1+z_1=1$ ). A nitride layer including a GaN component is formed on the wetting layer.

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